

**WIRELESS TERMINALS AND METHODS FOR COMMUNICATING OVER  
CELLULAR AND ENHANCED MODE BLUETOOTH  
COMMUNICATION LINKS**

**ABSTRACT OF THE DISCLOSURE**

A wireless terminal includes a Bluetooth module that communicates first  
5 information with a remote Bluetooth device, and a processor that selectively encodes  
the first information based on whether the remote Bluetooth device supports the  
enhanced communication mode. The wireless terminal can include a cellular  
transceiver that communicates second information with a cellular network according  
to a cellular communication protocol. In the enhanced communication mode, the  
10 processor may use one or more signal processing operations to encode the first  
information for transmission to the remote Bluetooth device that are also used to  
encode the second information for transmission to the cellular network.